Another invention feature is that an externally inputted data-temperature-dependence can be used to correct data by being combined with a current data-temperature-dependence and that combination replacing the current data-temperature-dependence..

Another invention feature is that an externally inputted data-temperature-dependence can not be used to correct data by not replacing a current data-temperature dependence because a property of the externally inputted dependence is not within at least one limit.

Another invention feature is that if a data-temperature-dependence is externally inputted, the method can further comprise receiving, as an input, the portion of fluid with that dependence, and using that input with the externally inputted data-temperature-dependence for data temperature compensation.

BRIEF DESCRIPTION OF THE FIGURES

FIG. 1 is representative graph illustrating variations in engine oil temperature for an on-highway diesel engine during one operating cycle.

FIG. 2 is representative graph illustrating the temperature dependence of a diesel-engine-oil's electrical-impedence at three times in the engine-oil's useful life.

FIG. 3 is representative graph illustrating the temperature dependence of a diesel-engine-oil's viscosity at three times in the engine-oil's useful life.

FIG. 4 is a flow chart of an invention embodiment that determines data-temperature-dependence when fluid temperature increases.

~~FIG. 5 is a flow chart of an embodiment of the invention that determines data-temperature-dependence when fluid temperature decreases.~~

~~FIG. 6 is a flow chart of an embodiment of the invention that determines data-temperature-dependence when fluid temperature either increases or decreases.~~

~~FIG. 7 is a flow chart of another embodiment of the invention that determines data-temperature-dependence.~~

~~FIG. 8 is a flow chart of another embodiment of the invention that provides output when a new temperature-dependence is used to temperature compensate data.~~

~~FIG. 9 is a flow chart of an embodiment of the invention that combines the determined data-temperature-dependence with the current data-temperature-dependence and uses the combined data-temperature-dependence to correct data for temperature variations.~~

~~FIG. 10 is a flow chart of an embodiment of the invention that determines data-temperature-dependence for two data series at most once each operating cycle.~~

~~FIG. 11 is a flow chart of an embodiment of the invention that determines data-temperature-dependence with determined threshold temperatures and threshold rate.~~

~~FIG. 12 is a flow chart of an embodiment of the invention that outputs information about the determined data-temperature-dependence.~~

~~FIG. 13 is a flow chart of an embodiment of the invention that only uses the determined data-temperature-dependence if it is within a preset limit of a current dependence.~~

~~FIG. 14 is a flow chart of an embodiment of the invention that allows data-temperature-dependence information to be input to the method.~~

~~FIG. 15 is a flow chart of an embodiment of the invention that allows data-temperature-dependence information to be in put and combined with the current data-temperature-dependence.~~

DETAILED DESCRIPTION OF THE INVENTION

The invention relates to a cost-effective method for compensating data relevant to the quality and/or condition of a fluid while in use in a device or process. For the purposes of illustration, the following figures are shown and described.